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10/729,720	12/05/2003	Keith Robert Reynolds	08204/0200314-US0	2639
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DARBY & DARBY P.C. P.O. BOX 5257 NEW YORK, NY 10150-5257			EXAMINER URICK, MATTHEW T	
			ART UNIT 2113	PAPER NUMBER

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,720	<b>Applicant(s)</b> REYNOLDS ET AL.	
	<b>Examiner</b> Matt Urick	<b>Art Unit</b> 2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☒ Claim(s) 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Non-Final Official Action***

***Status of the Claims***

Claims 1-7, 9-11, 14, 15, 19, 22-26, 28, 30-37, 39-45 are rejected under 35 U.S.C. 102(b).

Claims 12, 13, 16-18, 20, 21, 27, 29, 38 are rejected under 35 U.S.C. 103.

Claim 41 is objected to due to minor informalities

***Claim Objections***

Claim 41 objected to because of the following informalities: Claim 41 contains the limitation "The apparatus of claim 35, wherein the information shared..." but there is no "information shared" in claim 35. However, claim 40 contains the step of "sharing information associated with the transmission," so claim 41 is assumed to be dependant on claim 40 for this action.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9-11, 14, 15, 19, 22-26, 28, 30-37, 39-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Frankel (United States Patent No. 5,187,706).

As per claim 1, Frankel discloses:

A method for mirroring a connection in a network, comprising:

receiving, by a first network device, a packet from a resource (column 3 lines 10-21);

communicating the packet to a second network device (column 3 lines 10-21, or column 5 line 67 – column 6 line 5);

forwarding the packet to another network device, wherein the packet is forwarded by a forwarding device that is determinable from at least the first network device and the second network device (column 4 line 49-53);

receiving, by the first network device, 'a response packet from the other network device (column 6 lines 38-50);

communicating, by the first network device, the response packet to the second network device (column 6 lines 38-50); and

forwarding, by the forwarding device, the response packet towards the resource (column 6 lines 51-54).

As per claim 2, Frankel discloses:

The method of Claim 1, wherein the first network device is an active network device, the second network device is a standby network device, and the forwarding device is the active network device (column 3 line 18-21, column 4 line 49-56; since the active or standby device is able to receive and forward packets in an

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identical matter as claimed, either of Frankel's Offices 102 and 103 may be considered "active" or "standby").

As per claim 3, Frankel discloses:

The method of Claim 1, wherein the first network device is an active network device, the second network device is a standby network device, and the forwarding device is the standby network device (column 5 line 67 – column 6 line 5).

As per claim 4, Frankel discloses:

The method' of Claim 1, wherein the first network device is a standby network device, the second network device is an active network device, and the forwarding device is the active network device (column 5 line 67 – column 6 line 5).

As per claim 5, Frankel discloses:

The method of Claim 1, wherein the first network device is a standby network device, the second network device is an active network device, and the forwarding device is the standby network device (column 3 line 18-21, column 4 line 49-56).

As per claim 6, Frankel discloses:

The method of Claim 1, wherein the first network device and the second network device are each configured to balance a network load (column 4 lines 21-36).

As per claim 7, Frankel discloses:

The method of Claim 1, wherein forwarding the packet to the other network device, further comprises transforming the packet (column 3 lines 12-21).

As per claim 9, Frankel discloses:

The method of Claim 1, wherein forwarding the packet to the other network device further comprises transforming the packet (column 4 lines 21-36), and wherein forwarding the response packet further comprises transforming the response packet (column 3 lines 12-21).

As per claim 10, Frankel discloses:

The method of Claim 9, wherein transforming the packet further comprises sharing information associated with the transformation between the first network device and the second network device (column 3 lines 12-21).

As per claim 11, Frankel discloses:

The method of Claim 10, wherein the information shared is sent from an active network device to a standby network device (column 3 lines 12-21).

As per claim 14, Frankel discloses:

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A method for mirroring a connection in a network, comprising:

receiving, by an active network device, a packet from a resource (column 3 lines 10-21);

forwarding, by the active network device, a copy of the packet to a standby network device (column 3 lines 10-21);

forwarding the packet towards another network device, wherein the packet is forwarded by the active network device (column 4 line 49-53);

receiving, by the active network device, a response packet from the other network device (column 6 lines 38-50);

forwarding, by the active network device, a copy of the response packet to the standby network device (column 6 lines 38-50); and

forwarding, by the active network device, the response packet towards the resource (column 6 lines 51-54).

As per claim 15, Frankel discloses:

The method of Claim 14, wherein forwarding the packet towards the other network device further comprises transforming the packet, and wherein forwarding the response packet towards the resource further comprises transforming the response packet (column 3 lines 12-21).

As per claim 19, Frankel discloses:

A method for mirroring a connection in a network, comprising:

receiving, by an active network device, a packet from a resource (column 3 lines 10-21);

communicating a copy of the packet to a standby network device (column 3 lines 10-21);

forwarding the copy of the packet to another network device, wherein the copy of the packet is forwarded by the standby network device (column 4 line 49-53);

receiving, by the active network device, a response packet from the other network device (column 6 lines 38-50);

communicating a copy of the response packet to the standby network device (column 6 lines 38-50); and

forwarding, by the standby network device, the copy of the response packet towards the resource (column 7 lines 21-27).

As per claim 22, Frankel discloses:

A method for mirroring a connection in a network, comprising:

receiving, by a standby network device, a packet from a resource (column 3 lines 10-21);

forwarding a copy of the packet to an active network device (column 3 lines 10-21);

forwarding a copy of the packet to another network device, wherein the copy of the packet is forwarded by the active network device (column 4 line 49-53);

receiving, by the standby network device, a response packet from the



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other network device (column 6 lines 38-50);

forwarding a copy of the packet to the active network device (column 6 lines 38-50); and

forwarding, by the active network device, the copy of the response packet towards the resource (column 6 lines 38-50).

As per claim 23, Frankel discloses:

The method of Claim 22, wherein forwarding the copy of the packet to the other network device further comprises transforming the copy of the packet, and wherein forwarding the copy of the response packet further comprises transforming the copy of the response packet (column 3 lines 12-21).

As per claim 24, Frankel discloses:

The method of Claim 23, wherein transforming the packet further comprises sharing information associated with the transformation between the active network device and the standby network device (column 3 lines 12-21).

As per claim 25, Frankel discloses:

A network device, for mirroring a connection with another network device in a network, comprising:

a transceiver arranged to receive and forward a packet;  
a processor, coupled to the transceiver, that is configured to perform

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actions, including:

receiving a packet from a resource (column 3 lines 10-21),

communicating the packet to the other network device (column 3 lines 10-21);

if the network device is a forwarding device, forwarding the packet towards a server (column 3 lines 10-21);

receiving a response packet from the server (column 3 lines 10-21);

communicating the response packet to the other network device (column 6 lines 38-50);

and

if the network device is the forwarding device, forwarding the response packet towards the resource (column 6 lines 38-50).

As per claim 26, Frankel discloses:

The network device of Claim 25, further comprising:

if the other network device is the forwarding device, enabling the other network device to forward the packet towards the server, and to forward the response packet towards the resource (column 5 line 67 – column 6 line 5; column 7 lines 21-27);

As per claim 28, Frankel discloses:

A standby network device, for monitoring a connection with an active network device in a network, comprising'.

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a transceiver arranged to receive and forward a packet (column 3 lines 10-21);

a processor, coupled to the transceiver, that is configured to perform actions, including:

receiving a packet from a resource (column 3 lines 10-21);

communicating a copy of the packet to the active network device (column 3 lines 10-21)

receiving a response packet from another resource, wherein the response packet is in response to the other resource receiving a copy of the packet from the active server (column 6 lines 38-50); and

communicating a copy of the response packet to the active network device (column 6 lines 38-50).

As per claim 30, Frankel discloses:

A system for mirroring a connection in a network, comprising:

(a) a first network device, configured to perform actions, including:

receiving a packet from a resource (column 3 lines 10-21);

sending the packet to a second network device (column 3 lines 10-21);

if the first network device is a pre-determined forwarding network device, forwarding the packet towards another resource (column 3 lines 10-21);

receiving a response packet from the other resource (column 6 lines 38-50); and

if the first network device is the pre-determined forwarding

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network device, forwarding the response packet towards the resource (column 6 lines 38-50); and

(b) the second network device, coupled to the first network device, and configured to perform actions, including:

receiving the packet from the first network device (column 3 lines 10-21);

and

if the second network device is the pre-determined forwarding network device, forwarding the packet towards the other resource, and forwarding the response packet towards the resource (column 5 line 67 – column 6 line 5; column 7 lines 21-27).

As per claim 31, Frankel discloses:

The system of Claim 30, wherein the first network device is an active network device, the second network device is a standby network device, and the forwarding network device is the active network (column 3 line 18-21, column 4 line 49-56).

As per claim 32, Frankel discloses:

The system of Claim 30, wherein the first network device is an active network device, the second network device is a standby network device, and the forwarding device is the standby network device (column 5 line 67 – column 6 line 5).

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As per claim 33, Frankel discloses:

The system of Claim 30, wherein the first network device is a standby network device, the second network device is an active network device, and the forwarding device is the active network device (column 5 line 67 – column 6 line 5).

As per claim 34, Frankel discloses:

The system of Claim 30, wherein forwarding the packet further comprises sharing information between the first network device and the second network device (column 3 lines 10-21).

As per claim 35, Frankel discloses:

An apparatus, for mirroring a connection in a network, comprising:

a transceiver arranged to receive and forward a packet (column 3 lines 10-21);

a processor, coupled to the transceiver, that is configured to perform

actions, including:

receiving a packet from a resource (column 3 lines 10-21);

communicating the packet to another apparatus (column 3 lines 10-21);

if the apparatus is a forwarding device, forwarding the packet

towards another resource (column 5 line 67 – column 6 line 5);

receiving a response packet from the other resource (column 6 lines 38-

50);

communicating the response packet to the other apparatus (column 6 lines 38-50); and

if the apparatus is the forwarding device, forwarding the response packet towards the resource (column 6 lines 38-50, column 7 lines 21-27).

As per claim 36, Frankel discloses:

The apparatus of Claim 35, wherein the apparatus and the other apparatus are each configured to balance a network load (column 4 lines 21-36).

As per claim 37, Frankel discloses:

The apparatus of Claim 35, wherein forwarding the packet to the other apparatus, further comprises transforming the packet (column 3 lines 12-21).

As per claim 39, Frankel discloses:

The apparatus of Claim 35, wherein forwarding the packet to the other apparatus further comprises transforming the packet, and wherein forwarding the response packet further comprises transforming the response packet (column 3 lines 12-21).

As per claim 40, Frankel discloses:

The apparatus of Claim 35, wherein transforming the packet further comprises sharing information associated with the transformation between the apparatus and the

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other apparatus (column 3 lines 10-21: the entire packet is sent between the apparatus and the other apparatus).

As per claim 41, Frankel discloses:

The apparatus of Claim 35, wherein the information shared is sent from an active network device to a standby network device (column 3 lines 10-21).

As per claim 42, Frankel discloses:

The apparatus of Claim 35, wherein the apparatus is an active network device, the other apparatus is a standby network device, and the forwarding device is the active network device (column 3 line 18-21, column 4 line 49-56).

As per claim 43, Frankel discloses:

The apparatus of Claim 35, wherein the apparatus is an active network device, the other apparatus is a standby network device, and the forwarding device is the standby network device (column 5 line 67 – column 6 line 5).

As per claim 44, Frankel discloses:

The apparatus of Claim 35, wherein the apparatus is a standby network device, the other apparatus is an active network device, and the forwarding device is the active network device (column 5 line 67 – column 6 line 5).

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As per claim 45, Frankel discloses:

The apparatus of Claim 35, wherein the apparatus is a standby network device, the other apparatus is an active network device, and the forwarding device is the standby network device (column 3 line 18-21, column 4 line 49-56)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 17, 20, 21, 29, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frankel (United States Patent No. 5,187,706) in view of Null ("The Essentials of Computer Organization and Architecture.").

As per claim 8, Frankel fails to disclose:

The method of Claim 1, further comprising:

upon communicating the packet to the second network device, sending, by the forwarding device, an acknowledgement packet to the resource; and upon communicating the response packet to the second network device, sending, by the forwarding device, another acknowledgement packet to the other



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network device.

Null discloses that the TCP/IP system always sends acknowledgement packets back to the sender of the original packet as a quality control measure (page 521 – 524: “The TCP Protocol at Work”). This prevents lost packets as well as repeated unnecessary retransmissions. Using TCP, the forwarding would have sent an acknowledgement packet after receiving a packet from the source or the other network device. Frankel discloses that any type of well known network connection may be used (column 3 lines 22-29), and that he wishes to prevent communication failures (column 1 lines 6-10). Using the acknowledgement packets in TCP/IP would prevent messages from being lost, as well as serve as an effective communication protocol between the network devices of Frankel’s network. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate TCP/IP into the network of Frankel, as an effective communication protocol, and an added quality control measure.

As per claim 17,

The method of Claim 14, further comprising:

upon forwarding the copy of the packet to the standby network device,  
sending, by the active network device, an acknowledgement packet to the resource;  
and

upon forwarding the copy of the response packet to the standby network  
device, sending, by the active network device, an acknowledgement packet to the other  
network device.

Null discloses that the TCP/IP system always sends acknowledgement packets back to the sender of the original packet as a quality control measure (page 521 – 524: “The TCP Protocol at Work”). This prevents lost packets as well as repeated unnecessary retransmissions. Using TCP, the forwarding would have sent an acknowledgement packet after receiving a packet from the resource or the other network device. Frankel discloses that any type of well known network connection may be used (column 3 lines 22-29), and that he wishes to prevent communication failures (column 1 lines 6-10). Using the acknowledgement packets in TCP/IP would prevent messages from being lost, as well as serve as an effective communication protocol between the network devices of Frankel’s network. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate TCP/IP into the network of Frankel, as an effective communication protocol, and an added quality control measure.

As per claim 20, Frankel discloses:

The method of Claim 19, further comprising:

synchronizing the standby network device with the active network device by communicating pre-determined information about each active connection to the standby network device on a busiest connection first order of connections.

Null discloses that a router is a device which determines where packets are to be forwarded in a network (page 539: “Routers and Routing,” first paragraph). They do this by exchanging routing tables with each other routers on the network, with the preferred -

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and therefore busiest - route first (page 542 first 3 full paragraphs). This prevents long delays when network links fail (page 541 last paragraph). Frankel discloses that he wishes to prevent long switching delays from downed links (column 1 lines 13-32). Using routers at each office to maintain routing tables would prevent excessive delays during link failure recovery switching, decreasing latency and downtime for subscribers. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate routers into the communication network of Frankel, decreasing latency and downtime.

As per claim 21, Frankel discloses:

The method of Claim 20, wherein the pre-determined information includes at least one of a change in a sequence number, and a Network Address Translation (NAT), and a port address translation.

Null discloses that a router is a device which determines where packets are to be forwarded in a network (page 539: "Routers and Routing," first paragraph). They do this by exchanging routing tables with each other routers on the network, with the preferred - and therefore busiest - route first (page 542 first 3 full paragraphs). This includes network addresses and hop sequences (page 543, figure 11.21). This prevents long delays when network links fail (page 541 last paragraph). Frankel discloses that he wishes to prevent long switching delays from downed links (column 1 lines 13-32). Using routers at each office to maintain routing tables would prevent excessive delays during link failure recovery switching, decreasing latency and downtime for subscribers.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate routers into the communication network of Frankel, decreasing latency and downtime.

As per claim 29, Frankel discloses:

The standby network device of Claim 28, wherein the active device is configured to communicate an acknowledgement packet to the resource in response to receiving the copy of the packet, and to further communicate another acknowledgement packet to the other resource in response to receiving the copy of the response packet.

Null discloses that a router is a device which determines where packets are to be forwarded in a network (page 539: "Routers and Routing," first paragraph). They do this by exchanging routing tables with each other routers on the network, with the preferred - and therefore busiest - route first (page 542 first 3 full paragraphs). This prevents long delays when network links fail (page 541 last paragraph). Frankel discloses that he wishes to prevent long switching delays from downed links (column 1 lines 13-32). Using routers at each office to maintain routing tables would prevent excessive delays during link failure recovery switching, decreasing latency and downtime for subscribers. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate routers into the communication network of Frankel, decreasing latency and downtime.

As per claim 38, Frankel discloses:

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The apparatus of Claim 35, further comprising:

upon communicating the packet to the other apparatus, sending, by the forwarding device, an acknowledgement packet to the resource; and

upon communicating the response packet to the other apparatus, sending, by the forwarding device, another acknowledgement packet to the other resource.

Null discloses that a router is a device which determines where packets are to be forwarded in a network (page 539: "Routers and Routing," first paragraph). They do this by exchanging routing tables with each other routers on the network, with the preferred - and therefore busiest - route first (page 542 first 3 full paragraphs). This prevents long delays when network links fail (page 541 last paragraph). Frankel discloses that he wishes to prevent long switching delays from downed links (column 1 lines 13-32). Using routers at each office to maintain routing tables would prevent excessive delays during link failure recovery switching, decreasing latency and downtime for subscribers. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate routers into the communication network of Frankel, decreasing latency and downtime.

Claims 12, 13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frankel (United States Patent No. 5,187,706) in view of See (United States Patent Application Publication 2004/0003094 A1).

As per claim 12, Frankel fails to disclose:

The method of Claim 1, further comprising, determining if the connection is to be mirrored based in part on at least one of a duration of the connection, a size of the packet, a content of the packet, an application associated with the packet, and a characteristic associated with a user of the resource.

See discloses a system in which packets must meet “mirror classification criteria” in order to be mirrored to a remote analysis device (See ¶¶ 52-53). This criteria can include duration of the connection, a size of the packet, a content of the packet, an application associated with the packet, and a characteristic associated with a user of the resource (See ¶¶ 53 lines 1-7). See discloses that this enables selected packets to be mirrored to another device for analysis (See ¶¶ 2-3). Frankel discloses that his invention is designed to mirror a connection (Frankel column 1 lines 54-61), as well as forward other traffic unrelated to the mirrored transmission (column 2 line 64 – column 3 line 9). Using See’s invention would enable the user to forward only the desired packets to the secondary device and forward the rest of the unrelated traffic to its desired location. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the selective mirroring system of See into the communication network of Frankel, enabling other types of network traffic to be forwarded on the same network.

As per claim 13, Frankel fails to disclose:

The method of Claim 12, further comprising, if it is determined that the connection is non-mirrored, determining the forwarding device as the first network

device for communication.

See discloses a system in which packets must meet “mirror classification criteria” in order to be mirrored to a remote analysis device (See ¶ 52-53). This criteria can include duration of the connection, a size of the packet, a content of the packet, an application associated with the packet, and a characteristic associated with a user of the resource (See ¶ 53 lines 1-7). If the criteria is not met, the original (first) device forwards the packets as usual, without mirroring (¶ 54). See discloses that this enables selected packets to be mirrored to another device for analysis (See ¶ 2–3). Frankel discloses that his invention is designed to mirror a connection (Frankel column 1 lines 54-61), as well as forward other traffic unrelated to the mirrored transmission (column 2 line 64 – column 3 line 9). Using See’s invention would enable the user to forward only the desired packets to the secondary device and forward the rest of the unrelated traffic to its desired location. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the selective mirroring system of See into the communication network of Frankel, enabling other types of network traffic to be forwarded on the same network.

As per claim 18, Frankel fails to disclose:

The method of Claim 14, further comprising:  
dynamically determining if the packet is to be mirrored based in part on  
at least one of a duration of a connection associated with the packet, a size of data  
associated with the packet, a characteristic associated with the packet, a characteristic

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associated with a user of the resource, and an application associated with the connection.

See discloses a system in which packets must meet “mirror classification criteria” in order to be mirrored to a remote analysis device (See ¶ 52-53). This criteria can include duration of the connection, a size of the packet, a content of the packet, an application associated with the packet, and a characteristic associated with a user of the resource (See ¶ 53 lines 1-7). See discloses that this enables selected packets to be mirrored to another device for analysis (See ¶ 2–3). Frankel discloses that his invention is designed to mirror a connection (Frankel column 1 lines 54-61), as well as forward other traffic unrelated to the mirrored transmission (column 2 line 64 – column 3 line 9). Using See’s invention would enable the user to forward only the desired packets to the secondary device and forward the rest of the unrelated traffic to its desired location. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the selective mirroring system of See into the communication network of Frankel, enabling other types of network traffic to be forwarded on the same network.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frankel (United States Patent No. 5,187,706) in view of Microsoft Computer Dictionary (fifth edition).

Frankel fails to disclose:

The method of Claim 15, wherein transforming the packet further



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comprises performing at least one of a Secure Socket Layer (SSL) action, a security action, a compression action, a decompression action, an encryption action, and a decryption action.

Microsoft Computer Dictionary discloses compression as method of reducing a file to a smaller size for bandwidth reduction (definition: compress<sup>2</sup>). There are several well known methods of compression which can be used for various file types. Using compression, and subsequently decompression (definition: uncompress) to read the file, would reduce the used bandwidth, reducing demand on the network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate compression and decompression into the communication network of Frankel, increasing available bandwidth.

SSL is disclosed by Microsoft Computer Dictionary as a security protocol which uses public key encryption to increase privacy in a network. Frankel discloses that his invention is typically used in an office environment (column 1 lines 40-61). Using SSL encryption would increase the privacy between the customer and the offices, and between the offices as well. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate SSL into the communication network of Frankel, increasing privacy and security

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frankel (United States Patent No. 5,187,706) in view of Microsoft Computer Dictionary (fifth

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edition), and in further view of Null ("The Essentials of Computer Organization and Architecture.").

As per claim 27, Frankel discloses:

The network device of Claim 25, wherein the network device and the other network device are configured to operate as at least one of a load-balancer, a router, a firewall, a proxy, a bridge and a network address translation device.

Null discloses that a router is a device which determines where packets are to be forwarded in a network (page 539: "Routers and Routing," first paragraph). They do this by exchanging routing tables with each other routers on the network, translating each address into a path (page 542 first 3 full paragraphs). This method of routing also balances network load since the link with the least latency is chosen as "preferred." This prevents long delays when network links fail (page 541 last paragraph). Frankel discloses that he wishes to prevent long switching delays from downed links (column 1 lines 13-32). Bridges act in a similar manner, except primarily at the data link layer (Null page 538: "Bridges and Gateways"). Using routers and bridges at each office to maintain routing tables would prevent excessive delays during link failure recovery switching, decreasing latency and downtime for subscribers. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate routers and bridges into the communication network of Frankel, decreasing latency and downtime.

A proxy (Microsoft Computer Dictionary definition: proxy) can also be used in any of the offices or other locations disclosed by Frankel. They protect network local network devices from other devices on the internet by presenting themselves as a single network address to external sites. A firewall (Null page 547, 548) also improves security by only allowing access to users of the internal network to access or modify files. Frankel discloses that his invention is typically used in an office environment (column 1 lines 40-61). Using proxies and firewalls in the offices locations of Frankel would increase the privacy between the customer and the offices, and between the offices as well. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate proxies and firewalls into the communication network of Frankel, increasing privacy and security.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt Urick whose telephone number is (571) 272-0805. The examiner can normally be reached on 8:00 - 4:30.

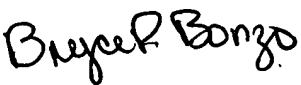
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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**BRYCE P. BONZO**  
**PRIMARY EXAMINER**